SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS
OFFEROR TO COMPLETE BLOCKS 12, 17, 23, 24, & 30.

1. REQUISITION NUMBER	PAGES 1 OF (1) PAGE(S)
A61520862	

2. CONTRACT NO.	3. AWARD/EFFECTIVE DATE	4. ORDER NUMBER	5. SOLICITATION NUMBER	6. SOLICITATION ISSUE DATE
GS00Q14OADU122	09/20/2017	GSQ1117BJ0049		9/23/2016

7. FOR SOLICITATION INFORMATION CALL:	a. NAME	b. TELEPHONE NUMBER *(No Collect Calls)*	8. OFFER DUE DATE/ LOCAL TIME
			4:00 PM EST

9. ISSUED BY	10. THIS ACQUISITION IS	11. DELIVERY FOR FOB DESTINATION UNLESS BLOCK IS MARKED	12. DISCOUNT TERMS
GSA Region 11 Daniel K. Higgins 3017th St.SW WASHINGTON, DC 20407-0001 United States 202-708-5627	☐ UNRESTRICTED ☐ SET ASIDE: % FOR ☐ SMALL BUSINESS ☐ HUBZONE SMALL BUSINESS	Destination	NET 30 DAYS / 0.00 % 0 DAYS / 0.00 % 0 DAYS

☐ 13a. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700)

13b. RATING

14. METHOD OF SOLICITATION

15. DELIVER TO	16. ADMINISTERED BY
Ryan T Norman 4800 MARK CENTER DRIVE SUITE 07J22 ALEXANDRIA, VA 22350 United States 571-372-2600	8(a) NAICS: SIC: SIZE STANDARD: Daniel K. Higgins 202-708-5627

17a. CONTRACTOR/ OFFEROR	18a. PAYMENT WILL BE MADE BY
AMY E HOWARD LEIDOS, INC. 11951 FREEDOM DR RESTON, VA 20190-5640 United States 571-526-7028	General Services Administration (FUND) The contractor shall follow these Invoice Submission Instructions. The contractor shall submit invoices electronically by logging into the ASSIST portal (https://portal.fas.gsa.gov), navigating to the appropriate order, and creating the invoice for that order. For additional assistance contact the ASSIST Helpdesk at 877-472-4877. Do NOT submit any invoices directly to the GSA Finance Center (neither by mail nor via electronic submission)
17b. ☐ CHECK IF REMITTANCE IS DIFFERENT AND PUT SUCH ADDRESS IN OFFER	18b. SUBMIT INVOICES TO ADDRESS SHOWN IN BLOCK 18a UNLESS BLOCK BELOW IS CHECKED

19. ITEM NO	20. SCHEDULE OF SUPPLIES/SERVICES	21. QUANTITY	22. UNIT	23. UNIT PRICE	24. AMOUNT
ITEM NO.	TASK ITEM DESCRIPTION		PREVIOUS MOD AMT	MOD CHANGE AMT	NEW MOD AMT
0001	Program Management Support - Base Year		(b) (4)		
0002	Requirements Gathering - Enterprise Architecture - Base Year				
0003	Enterprise Architecture - Development, Planning & Design - Base Year				
0004	Enterprise Development End-User Support - Base Year				
0005	Information Assurance (IA) & Security Engineering - Base Year				
0006	Long Distance Travel - Base Year				
0007	ODCs (DCMA Indirect Rate FPRR) Base Year				
0008	Contract Access Fee (CAF) Base Year				

25. ACCOUNTING AND APPROPRIATION DATA	26. TOTAL AWARD AMOUNT *(For Govt. Use Only)*
285F.Q11FA000.AA20.25.AF151.H08...	$1,534,708.73

☐ 27a. SOLICITATION INCORPORATES BY REFERENCE FAR 52.212-1, 52.212-4. FAR 52.212-3 and 52.212-5 ARE ATTACHED. ADDENDA ATTACHED.

☐ 27b. CONTRACT/PURCHASE ORDER INCORPORATES BY REFERENCE FAR 52.212-4. FAR 52.212-5 IS ATTACHED. ADDENDA ATTACHED.

28. CONTRACTOR IS NOT REQUIRED TO SIGN THIS DOCUMENT AND RETURN COPIES TO ISSUING OFFICE. ☐ CONTRACTOR AGREES TO FURNISH AND DELIVER ALL ITEMS SET FORTH OR OTHERWISE IDENTIFIED ABOVE AND ON ANY ADDITIONAL SHEETS SUBJECT TO THE TERMS AND CONDITIONS SPECIFIED HEREIN.	29. AWARD OF CONTRACT: REFERENCE OFFER DATE . YOUR OFFER ON SOLICITATION (BLOCK 5) INCLUDING ANY ADDITIONS OR CHANGES WHICH ARE SET FORTH HEREIN, IS ACCEPTED AS TO ITEMS:
30a. SIGNATURE OF OFFEROR/CONTRACTOR	31a. UNITED STATES OF AMERICA *(SIGNATURE OF CONTRACTING OFFICER)* Daniel K. Higgins
30b. NAME AND TITLE OF SIGNER *(Type or print)* 30c. DATE SIGNED	31b. NAME OF CONTRACTING OFFICER *(Type or print)* Daniel K. Higgins 202-708-5627 31c. DATE SIGNED 9/22/2017
32a. QUANTITY IN COLUMN 21 HAS BEEN	32b. SIGNATURE OF AUTHORIZED GOVT. REPRESENTATIVE 32c. DATE
32d. PRINTED NAME AND TITLE OF AUTHORIZED GOVERNMENT REPRESENTATIVE 32e. MAILING ADDRESS OF AUTHORIZED GOVERNMENT REPRESENTATIVE	32f. TELEPHONE NUMBER OF AUTHORIZED GOVERNMENT REPRESENTATIVE 32g. E-MAIL OF AUTHORIZED GOVERNMENT REPRESENTATIVE
33. SHIP NUMBER 34. VOUCHER NUMBER	35. AMOUNT VERIFIED CORRECT FOR 36. PAYMENT
37. CHECK NUMBER	38. S/R ACCOUNT NUMBER 39. S/R VOUCHER NUMBER 40. PAID BY
41a. I CERTIFY THIS ACCOUNT IS CORRECT AND PROPER FOR PAYMENT	42a. RECEIVED BY *(Print)*
41b. SIGNATURE AND TITLE OF CERTIFYING OFFICER 41c. DATE GSA Finance Customer Support AUTHORIZED FOR LOCAL REPRODUCTION	42b. RECEIVED AT *(Location)* 42c. DATE REC'D *(YY/MM/DD)* 42d. TOTAL CONTAINERS
SEE REVERSE SIDE FOR OMB CONTROL NUMBER AND PAPERWORK BURDEN STATEMENT	**STANDARD FORM 1449** (REV. 4-2002) Prescribed by GSA - FAR (48 CFR) 53.212

C.1 BACKGROUND

The TRMC has been implementing TENA for over 15 years, in order to establish, maintain, and expand reliable test range interoperability, through the use of a common architecture. Reliable range interoperability requires the use of a common architecture (including a common language, communication mechanism and context) to meaning-fully communicate across divergent systems. Moreover, effective reuse of range resources requires well-documented system interfaces that ensure commonality. TENA enables reliable, interoperable, reusable, and composable connectivity of geographically distributed range resources, some live and some simulated, that can be rapidly combined to meet new testing and training missions in a realistic manner. The expansion, operations, and future modernization of TENA are the responsibility of the TENA Software Development Activity (SDA), under the TRMC, with sponsorship from the Central Test and Evaluation Investment Program (CTEIP) and the Joint Staff J7 Joint National Training Capability (JNTC).

C.1.1 PURPOSE

The purpose is to provide software engineering services to promote reuse of common and custom solutions through the development of composable interoperability solutions.

C.1.2 MISSION

The mission of TENA is to understand community needs and gaps in order to provide guidelines, support, and the underlying software necessary for developing interoperable test and training range systems.

C.2 SCOPE

2.1 The contractor shall provide program management support under this TO. This includes the management and oversight of all activities performed by contractor personnel, including subcontractors, to satisfy the requirements identified in this Performance Work Statement.

2.2 This TO is to obtain professional software engineering services. Services under this requirement are highly specialized and are a continuation of providing support at the customer/user level for multiple locations worldwide. The focus is research and development, and some Test and Evaluation (T&E), while these individual custom solutions are developed.

2.3 The scope of this TO is a new requirement to serve as a logical follow-on to the existing contract# W900KK-11-C-0039 to maintain continuity of essential tasks previously executed by US Army Program Executive Office Simulation Training & Instrumentation (PEO-STRI), Orlando, FL.

C.3 CURRENT ENVIRONMENT

TENA operates in an environment, which supports DoD sites worldwide, including the US

Army, US Navy, US Marine Corps and US Air Force. Additionally, TENA interacts with test ranges operated by other countries, including the United Kingdom, Australia, and Sweden. Currently 76 sites have incorporated TENA as part of their integration onto the Joint Mission Environment Test Capability (JMETC). The test ranges include both live and simulated ranges, which can be both standalone and integrated. The operation of TENA is the responsibility of the TRMC.

C.4 OBJECTIVE

The objective of this TO is to continue to assess and address Enterprise requirements in order to incorporate additional sites into the test and training capability through the development of composable interoperability solutions. This serves two purposes: 1) to streamline integration of test and training capabilities and 2) to further enhance distributed training and testing. Through the reuse and interoperability of test and evaluation assets, the ranges will reduce development, operation and maintenance costs. Through research, data analysis, system development, evaluations, strategic planning and assessments, the TENA SDA will further its ongoing partner-ship with JMETC to expand the test and training connectivity and develop enhanced capabilities for the test and training facilities. Expanded capabilities will include assessing the process, methodology, and infrastructure for T&E requirements and will result in developed hardware and software solutions that address T&E needs.

C.5 TASKS

The following tasks are in support of this TO and are detailed below:

Task 1 – Program Management Support (FFP)
Task 2 – Enterprise Architecture Requirements Capture (CPFF)
Task 3 – Enterprise Development Planning, Design, & Development (CPFF)
Task 4 – Enterprise Development End-User Support (CPFF)
Task 5 – Information Assurance (IA) & Security Engineering (CPFF)

C.5.1 TASK 1 – PROGRAM MANAGEMENT SUPPORT

The contractor shall provide program management support under this TO. This includes the management and oversight of all activities performed by contractor personnel, including sub-contractors, to satisfy the requirements identified in this TO. The contractor shall identify, by name, a Program Manager (PM), who shall provide management, direction, administration, quality control, and leadership of the execution of this TO. The contractor shall schedule meetings and provide deliverables in accordance with this TO.

C.5.1.1 SUBTASK 1 – COORDINATE A PROJECT KICK-OFF MEETING

The contractor shall schedule and coordinate a Project Kick-Off Meeting at TRMC. The meeting will provide an introduction between the contractor personnel and Government personnel who will be involved with the TO. The meeting will provide the opportunity to discuss technical, management, security issues, travel authorization and reporting procedures, as well as any unique conditions of the OASIS contract, and relationship with GSA NCR. At a minimum, the attendees shall include vital contractor personnel, to include the PM,

representatives from the TRMC TENA, other relevant Government personnel (as may be identified by TRMC TENA), the TRMC TENA Contracting Officer's Technical Representative (COTR), the NCR AAS Contracting Officer (CO), and NCR AAS Contracting Officer Representative (COR).

The contractor shall document all support requirements in a PMP. The contractor shall update the PMP as changes occur and shall work from the latest Government-approved version of the PMP.

The contractor shall provide the following at the Kick-Off meeting:

a. Transition-In Plan
b. Project Management Plan (PMP)
c. Quality Control Plan (QCP)

C.5.1.2 SUBTASK 2 – PREPARE A MONTHLY STATUS REPORT (MSR)

The contractor PM shall develop and provide a Monthly Status Report (MSR) **(Section J – Attachment C)** to document task progress and any actions for the Government using Microsoft (MS) Office Suite applications, monthly via electronic mail to the Technical Point of Contact (TPOC) and the COR.

The MSR shall include the following:

a. Activities during reporting period, by task (include: on-going activities, new activities, activities completed; progress to date on all above mentioned activities). Start each section with a brief description of the task.
b. Problems and corrective actions taken. Also include issues or concerns and proposed resolutions to address them.
c. Personnel gains, losses, and status (security clearance, etc.).
d. Government actions required.
e. Schedule (show major tasks, milestones, and deliverables; planned and actual start and completion dates for each).
f. Summary of trips taken, conferences attended, etc. (attach trip reports to this MSR for reporting period).
g. Accumulated invoiced cost for each CLIN up to the previous month.
h. Projected cost of each CLIN for the current month.

C.5.1.3 SUBTASK 3 - PREPARE A PROJECT MANAGEMENT PLAN (PMP)

The contractor shall document all support requirements in a PMP. The PMP shall:

a. Describe the proposed management approach.
b. Contain detailed Standard Operating Procedures (SOPs) for all tasks.
c. Include milestones, tasks, and subtasks required in this TO.
d. Provide for an overall Work Breakdown Structure (WBS) and associated responsibilities and partnerships between Government organizations.
e. Include the contractor's Quality Control Plan (QCP)

The contractor shall provide the Government with a draft PMP on which the Government will make comments. The final PMP shall incorporate the Government's comments.

C.5.1.4 SUBTASK 4 – PREPARE TRIP REPORTS

The Government will identify the need for a Trip Report when the request for travel is submitted. If a Trip Reported requirement is identified by the Government, the contractor shall provide a Trip Report. The contractor shall keep a summary of all long-distance travel including the name of the employee, location of travel, duration of trip, and point of contact (POC) at the travel location. The trip report shall document the purpose of the trip, trip objectives and significant results as required 7 days after completion.

C.5.1.5 SUBTASK 5 – QUALITY CONTROL PLAN (QCP)

The contractor PM shall develop a QCP. The QCP shall include the following sections: quality control goals and objectives, distribution and document control, description of quality control reporting procedures, and any sample reports. The QCP shall ensure the Government receives the level of quality that is consistent with the requirements specified in this contract. The QCP shall be in compliance with all identified government policies regarding handling of classified and sensitive information. The QCP shall be updated as task requirements dictate 90 days after award. The QCP shall also provide the Contractor's methodology for resolving problems identified by the Government during reviews conducted in accordance with its Quality Assurance Surveillance Plan (QASP).

C.5.1.6 SUBTASK 6– TRANSITION-IN

The contractor will work with an incumbent to deliver a plan to the TENA SDA for migrating any on-going efforts to this OASIS TO within 45 days of award. The purpose of the Task Transition-In Management Plan is to ensure continuity of operations for the TENA SDA and its users across the test and training community. The Transition-In period shall begin at Project Start (PS). The contractor shall execute the transition in IAW the approved Transition-In Plan.

The contractor shall focus on transition activities specifically related to the shift from the current PEO-STRI contract: W900KK-11-C-0039 environment to that of GSA NCR OASIS, with special emphasis on differences, risks, and risk mitigation planned. As well, any potential differences between tasking under the current PEO-STRI Contract and the OASIS TO shall be identified and managed in order to both maintain visibility and ensure effective risk mitigation.

The contractor will create the following deliverables in support of this task:
Task Transition In Management Plan (Deliverable 4.7).

C.5.1.7 SUBTASK 7 – TRANSITION-OUT PLAN

The Transition-Out Plan shall facilitate the accomplishment of a seamless transition from the

incumbent to an incoming contractor/Government personnel at the expiration of the TO. The Transition-Out Plan shall identify how it will coordinate with the incoming contractor and/or Government personnel to transfer knowledge regarding the following:

The contractor shall also establish and maintain effective communication with the incoming contractor/Government personnel for the period of the transition via weekly status meetings. The contractor shall provide the Government with a Task Transition-Out Management Plan in support of this task order **NLT 30 days** after award.

The plan shall fully describe how the Contractor shall, at a minimum approach the following issues: 1.) Removal of Contractor property and 2.) Data and information transfer; all forms e.g. hard copy and electronic; and any other actions required to ensure continuity of operations.

C.5.1.8 SUBTASK 8 – IMPLEMENT TRANSITION-OUT PLAN

The contractor shall be prepared to implement its Transition-Out Plan NLT 30 calendar days prior to expiration of the TO's Base Period, or at the beginning of any executed Option Period. Upon completion of the contract, the contractor shall also deliver a final report detailing accomplishes and recommended next steps.

The contractor will create the following deliverables in support of this task:
Final Technical Report

C.5.1.9 SUBTASK 9 - IN PROGRESS REVIEWS (IPR)

The contractor shall conduct a quarterly review prior to the completion of the base period and one 10 days prior to the end of each option period, if exercised. The contractor shall prepare and deliver an agenda one week prior to the IPR meeting to the TPOC and COR, for the purpose of Government review/modification and approval. IPRs should discuss pertinent areas including:

a. Technical Performance
b. Cost
c. Schedule
d. Quality
e. Risk and Risk Mitigation.

The IPR shall provide stakeholders with an overview of all projects, issues revolving around the projects, and project financial information.

C.5.2 TASK 2 – REQUIREMENTS GATHRING – ENTERPRISE ARCHITECTURE

The contractor will assist in the development of technical artifacts based on user requirements in order to expand the capabilities of the TENA technologies and services across DoD test and training communities. Engineering services required to develop these artifacts will include research, analysis, investigation, review, and assessment of existing test and training

architecture plans and solutions. The contractor will also work with the test and training communities to assist with the development of interoperability-enabling object models that express enterprise needs in accordance with user requirements.

The contractor shall provide the government with the following deliverables in support of this task:

a. TENA Enterprise Capability Need Statement
The Enterprise Capability Need Statement shall include, but is not limited to, the following sections:
   - Description of Need
   - List of Applicable Users
   - Impact if Capability not Provided
   - Estimated Resources Required Developing Detailed Requirements
   - Design and Analysis Justifying Need
   - Delivery via Email or Direct Input into TRMC/TENA Repository

b. TENA Logical Range Object Model [LROM]
A TENA LROM depicts the attributes and functions necessary to ensure interoperability between capabilities. Each TENA LROM shall be delivered in TENA Definition Language (TDL) format with a corresponding Unified Modeling Language (UML) diagram. The TENA SDA's current naming conventions should be utilized. Notes and comments should be utilized to explain each item in the model. Details and examples can be found on the TRMC/TENA Repository https://www.tena-sda.org (account required).

C.5.3 TASK 3 - ENTERPRISE ARCHITECTURE – DEVLOPMENT PLANNING & DESIGN

The contractor should follow mature software design and development practices to ensure the delivery of quality solutions to the Government according to the guidelines of TRMC. The Government will request Requirements Review, Design Review, and/or Code Review meetings on an as-needed basis in order to ensure software deliverables meet expectations. Prototypes and/or beta testing at select test or training ranges may be utilized in order to test new enterprise capabilities and ensure requirements have been met. Subtask deliverables below include all detailed requirements documentation, design documentation, source code, test scripts, and any necessary user documentation developed for each delivered capability. In addition, subtask deliverables shall be bounded by current DoD policies, instructions, directives and mandates governing test and training capabilities.

C.5.3.1 SUBTASK 1 - TENA SOFTWARE ENHANCMENT

The contractor will make improvements to the current TENA Middleware based on user needs which includes: enhancements to the TENA Middleware that allow multiple versions of the Middleware to run in parallel, thus enabling seamless upgrades for future versions that may change wire protocols and allowing ranges to upgrade versions one component at a time. The contractor shall provide a capability that allows the middleware to work across IPv6 networks. The contractor shall provide a capability that allows the middleware to support additional programming languages. The contractor will verify this capability by developing

full TENA middleware support for the Python programming language. Additional language support will be driven by user need statements gathered.

The contractor will create the following deliverables in support of this task:

- TENA Middleware Software
  The contractor shall provide all detailed requirements documentation, design documentation, source code, test scripts, and any necessary user documentation to explain how to install, use, and report problems to the TENA SDA. In addition, subtask deliverables shall be bounded by current DoD policies, instructions, directives and mandates governing test and training capabilities. These materials should be delivered to the government on a CD/DVD whenever a formal Middleware release is completed. Interim updates may be requested by the Government whenever significant software changes occur and will be delivered via upload to a Government-designated space on the TRMC/TENA Repository.

- TENA Language Binding Software
  The contractor shall provide all detailed requirements documentation, design documentation, source code, test scripts, and any necessary user documentation n to explain how to install, use, and report problems to the TENA SDA. In addition, subtask deliverables shall be bounded by current DoD policies, instructions, directives and mandates governing test and training capabilities. These materials should be delivered yearly to the government on a CD/DVD. Interim updates may be requested by the Government whenever significant software changes occur and will be delivered via upload to a Government-designated space on the TRMC/TENA Repository.

C.5.3.2 SUBTASK 2 – INTEROPERABILTY SOLUTION

A critical aspect of the TENA is to ensure interoperability between both new and legacy range solutions. The contract shall design government-requested interfaces to legacy and emerging range instrumentation systems in a manner that promotes interoperability and enterprise reuse among the test and training community. The contractor shall develop a framework for integrating systems over variable quality communications networks including one-way data ingest into TENA executions. This framework shall develop a message-oriented-middleware to allow the system to not depend on network quality or services such as TCP for properly ordered message delivery.

The contractor will create the following deliverables in support of this task:

- TENA Interface Software
- The contractor shall provide all detailed requirements documentation, design documentation, source code, test scripts, and any necessary user documentation to explain how to install, use, and report problems to the TENA SDA. In addition, subtask deliverables shall be bounded by current DoD policies, instructions, directives and mandates governing test and training capabilities. These materials should be delivered yearly to the government on a CD / DVD. Interim updates may be requested by the Government whenever significant software changes occur and will be delivered via upload to a Government-designated space on

the TRMC / TENA Repository.

- TENA LINK Software
  The contractor shall provide all detailed requirements documentation, design documentation, source code, test scripts, and any necessary user documentation to explain how to install, use, and report problems to the TENA SDA. In addition, subtask deliverables shall be bounded by current DoD policies, instructions, directives and mandates governing test and training capabilities. These materials should be delivered yearly to the government on a CD / DVD. Interim updates may be requested by the Government whenever significant software changes occur and will be delivered via upload to a Government-designated space on the TRMC / TENA Repository.

C.5.3.3 SUBTASK 3 - COMMUNITY COLLABORATION TOOLS

The contractor shall develop a system to host and maintain the TRMC/TENA Repository and shall provide access to the TENA services in an open internet, a closed .mil, and a classified network environment, per the appropriate data handling guidelines established by the TRMC. The contractor shall extend the TENA web repository to include the capability of containing software applications from JMETC, and demonstrate that the repository operates properly and can be accessed by third parties interested in creating a T&E collaboration environment of their own. The contractor shall provide a location for the government to place a classified JMETC node, an unclassified DREN node and an unclassified internet node. The contractor shall maintain all of the hardware and software necessary to duplicate the existing TENA unclassified infrastructure on both the classified JMETC and unclassified DREN nodes.

Improved configuration management, sharing source code and code testing capabilities to include cybersecurity vulnerability analysis is an emerging need for the test and training communities. As such, the contractor shall develop a distributed software testing system for use by the test and training community. The contractor shall prototype a capability that provides a reasonable platform for the demonstration of these emerging needs listed above. The contractor shall deliver training manuals to help end users develop automated tests for their TENA enabled systems that use the TENA repository.

The TRMC/TENA Repository currently supports over 9,000 users. Thus, the contractor shall provide maintenance, upgrades, and required enhancements to the TRMC/TENA Repository and TRMC Source Code Repository Prototype to support the requirements of the TRMC in such a way that minimizes disruption to the current 24/7 operations.

The contractor will create the following deliverables in support of this task:

- TRMC / TENA Repository
  The TRMC / TENA Repository is a web-based solution accessible by the TENA user community. Its purpose is to ensure collaboration, communicate with users, and provide a mechanism to distribute enterprise solutions throughout the community. As the main line of communication between and within the TENA SDA and its users, it is critical that the Repository remain operational through any transition or capability upgrades. The current TRMC / TENA Repository can be found at https://www.tena-

sda.org (account required).

- TRMC Source Code Repository Prototype
  The contractor shall provide all detailed requirements documentation, design documentation, source code, test scripts, and any necessary user documentation to explain how to install, use, and report problems to the TENA SDA. In addition, subtask deliverables shall be bounded by current DoD policies, instructions, directives and mandates governing test and training capabilities. These materials should be delivered yearly to the government on a CD / DVD. Interim updates may be requested by the Government whenever significant software changes occur and will be delivered via upload to a Government-designated space on the TRMC/TENA Repository.

C.5.3.4 SUBTASK 4 - TENA UTILITIES

The contractor will develop enterprise hardware and software solutions that directly address strategic plans and recommendations documented in TENA Enterprise Capability Need Statements per the guidelines established by the TRMC. These solutions improve the test and training community's reliability and availability supporting T&E events and exercises.

The contractor will create the following deliverables in support of this task:

- TENA Utility Software
  The contractor shall provide all detailed requirements documentation, design documentation, source code, test scripts, and any necessary user documentation to explain how to install, use, and report problems to the TENA SDA. In addition, subtask deliverables shall be bounded by current DoD policies, instructions, directives and mandates governing test and training capabilities. These materials should be delivered yearly to the government on a CD / DVD. Interim updates may be requested by the Government whenever significant software changes occur and will be delivered via upload to a Government-designated space on the TRMC/TENA Repository.

C.5.4 TASK 4 – ENTERPRISE DEVELOPMENT END-USER SUPPORT

An enterprise solution can only be successful when its users are supported. Problems are inevitable and they must be quickly mitigated and/or resolved. The contractor shall maintain an end user training capability. The training materials shall be kept up to date and training must be able to be conducted at the contractor facilities, government facilities or remotely over the web as required.

The contractor shall maintain a range of support capability as part of the TRMC / TENA Repository in order to support and troubleshoot range development efforts remotely. This capability shall include the ability to process and track problems and/or requests, maintain knowledge databases to facilitate knowledge transfer and access to experts in TENA technologies and range technologies available for remote or on-site development augmentation as directed by the government. The people in range support roles shall be able of working with data classified up to TS/SCI.

The contractor will create the following deliverables in support of this task:

- TENA Training Materials
  Training materials are typically updated yearly and in conjunction with major product releases. There are three types of training materials required:
  1) TENA Overview Course (TOC) is a 4 hour course designed to give non-technical managers an overview of TENA and its capabilities. The contractor shall deliver a training briefing and all supplemental materials necessary to conduct a TOC.
  2) TENA Introduction Course (TIC) is a 4 hour course designed to give technical managers and subject matter experts a detailed overview of TENA and its capabilities. The contractor shall deliver a training briefing and all supplemental materials necessary to conduct a TIC.
  3) TENA Hands-On Training (HOT) is a week-long course for software developers that provide the information necessary to develop applications that take advantage of TENA. The contractor shall deliver a training briefing, programming exercises, and all supplemental materials necessary to conduct a HOT.

- TENA User Help Desk
  The TENA User Help Desk provides a capability for users to submit questions and/or problems about TENA capabilities via a web interface integrated into the TRMC / TENA Repository. The government tracks user issues through the web site to ensure all problems are resolved in a timely manner. The current TENA Help Desk can be accessed via the TRMC/TENA Repository https://www.tena-sda.org (account required). As the main line of communication between the TENA SDA and its users, it is critical that the Help Desk remain operational through any transition or capability upgrades. There are currently approximately 9,000 users supported across multiple locations world-wide in this virtual environment. Tickets are submitted electronically via the web to the TENA Repository portal during normal business hours. Response times are expected to be within a 24 hour timeframe from when received.

C.5.5 TASK 5 – INFORMATION ASSURANCE (IA) & SECURITY ENGINEERING SOLUTION

The contractor shall design a security framework for use within the TENA services environment that ensures the suite of tools and systems that deliver the TENA services are in compliance with DoD best practices and deliver proper level of access controls, logging, and vulnerability assessment capability to provide data integrity to the TENA services. These processes include the initial and recurring checking of personnel status for clearances or US-Person in JPAS for the appropriate access groups as defined by TRMC. The contractor shall ensure that the space provided for the TRMC/TENA Repository is accredited for secure operations up to and including Secret. The processes and procedures for compliance to the framework shall be documented submitted to TRMC for review and approval.

The contractor will develop technical architecture artifacts and provide systems engineering support in order to research, analyze, investigate, review, and provide recommendations to address cybersecurity and information assurance requirements in accordance with current DoD policies, instructions, directives and mandates. The recommendations will ensure that all

solutions consider cybersecurity as part of system design while conforming to all current DoD IA policies and procedures.
The contractor will create the following deliverables in support of this task:

- Enterprise Development Cybersecurity Plan
  The Enterprise Development Cybersecurity Plan ensures that all TENA SDA capabilities employ an adequate cybersecurity posture. It should be developed in accordance with all current DoD policies and procedures. It includes, but is not limited to, the following sections: Executive Summary, list of risk controls, risk management plan, relevant CONOPS/procedures, system log templates, and training strategy.

- TENA Capability Vulnerability Assessment
  The contractor shall provide recommendations from the analysis including appropriate actions to take to ensure cybersecurity is engineered into each delivered capability. The report should include, at minimum, the following sections: background, description of Information Assurance considerations, system design, implementation, any IA scanning results, and process alternatives to address Information Assurance considerations, and recommendations.